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VOL. 8, No. 9 SEPTEMBER 1954

CHRONICLE OF THE WORLD HEALTH ORGANIZATION

LIVING VIRUS VACCINE IN RABIES CONTROL
MENTAL HEALTH IN CHILDHOOD
INTERNATIONAL SANITARY REGULATIONS
NURSING EDUCATION IN AFRICA

REPORTS OF EXPERT GROUPS
REVIEW OF WHO PUBLICATIONS
HEALTH LEGISLATION
NOTES AND NEWS

WORLD HEALTH ORGANIZATION
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The World Health Organization (WHO) is a specialized agency of the United Nations and represents the culmination of efforts to establish a single intergovernmental health agency. As such, it inherits the functions of antecedent organizations such as the Office International d'Hygiène Publique, the Health Organization of the League of Nations, and the Health Division of UNRRA.

WHO had its origin in the proposal made at the United Nations Conference held in San Francisco in 1945 that a specialized agency be created to deal with all matters relating to health. In 1946, representatives of 61 governments met at the International Health Conference, New York, drafted and signed the WHO Constitution, and established an Interim Commission to serve until the Constitution could be ratified by 26 Member States of the United Nations. The Constitution came into force on 7 April 1948, the First World Health Assembly met in Geneva in June 1948, and on 1 September 1948 the permanent Organization was established.

The work of the Organization is carried out by three organs : the World Health Assembly, the supreme authority, to which all Member States send delegates ; the Executive Board, the executive organ of the Health Assembly, consisting of 18 persons designated by as many Member States ; and a Secretariat under the Director-General.

The scope of WHO's interests and activities exceeds that of any previous international health organization and includes, in addition to major projects relating to malaria, tuberculosis, venereal diseases and treponematoses, maternal and child health, nutrition, and environmental sanitation, special programmes on public-health administration, epidemic diseases, mental health, professional and technical training, and other public-health subjects. It is also continuing work begun by earlier organizations on biological standardization, unification of pharmacopoeias, addiction-producing drugs, health statistics, international sanitary regulations, and the collection and dissemination of technical information, including epidemiological statistics.

* * *

The *Chronicle of the World Health Organization* is published in English, French, Spanish, and Chinese editions. It contains general information on the Organization, its principal activities, the meetings of its expert committees and other advisory bodies, as well as summaries of its main technical publications. Material from the *Chronicle* may be reproduced in the professional press, providing due acknowledgement is made.

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SCHEDULE OF MEETINGS

2-11 September	**Study Group on Children in Hospitals, Stockholm**
6-13 September	**Regional Committee for the Western Pacific, fifth session, Manila**
13-16 September	**Regional Committee for Europe, fourth session, Opatija**
13-18 September	**Expert Committee on Health Statistics, fourth session, Geneva**
20-25 September	**Regional Committee for Africa, fourth session, Léopoldville**
20-25 September	**Meeting of Consultant Group on Dental Health, Geneva**
21-25 September	**Regional Committee for South-East Asia, seventh session, New Delhi**
27-30 September	**Expert Committee on the International Pharmacopoeia, Subcommittee on Non-Proprietary Names, sixth session, Geneva**
27 September-2 October	**Joint Meeting of the Expert Committees on Mental Health and on Alcohol, Geneva**
1-6 October	**Conference on African Onchocerciasis, Léopoldville**
4-6 October	**PASO : Executive Committee, twenty-third meeting, Santiago**
7-22 October	**Regional Committee for the Americas, sixth session, Santiago**
	PASO : Fourteenth Pan American Sanitary Conference, Santiago
11-16 October	**Expert Committee on Drugs Liable to Produce Addiction, fifth session, Geneva**
17-30 October	**Public Health Nurses Seminar, Istanbul**
18-23 October	**Expert Committee on Biological Standardization, eighth session, Geneva**
20 October-1 November	**Inter-regional Meeting for the Co-ordination of Research on Sylvatic Plague, to be attended by Governments of Iran, Iraq, Syria, and Turkey, Teheran**
22 October	**PASO : Executive Committee, twenty-fourth meeting, Santiago**
25 October-10 November	**Committee on International Quarantine, second session, Geneva**
26 October-2 November	**Joint FAO/WHO Expert Committee on Nutrition, fourth session, Geneva**

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LIVING VIRUS VACCINE IN RABIES CONTROL

A campaign of mass vaccination of dogs, carried out in Israel with the aid of WHO, has shown that live antirabies vaccine—still in an experimental stage a few years ago—may become a decisive weapon in rabies control.

The " Flury " strain of the rabies virus, which is the principal strain used in preparing the vaccine, was isolated from central-nervous-system tissue of a girl named Flury who died of untreated rabies in 1939. This virus, maintained through passages on the chick brain, has, since 1945, been adapted to the developing chick embryo. Continued egg passage has resulted in a lessened pathogenicity for experimental animals without apparent loss of antigenicity. Vaccine at the 40th to 50th egg-passage-level is now used for the immunization of dogs ; for the vaccination of cattle, particularly of herds in South America which are threatened by the bites of rabid vampire bats, vaccine at the 170th to 180th passage is used. The " Kelev " strain, at the 60th to 70th passage, is also employed as vaccine for dogs.

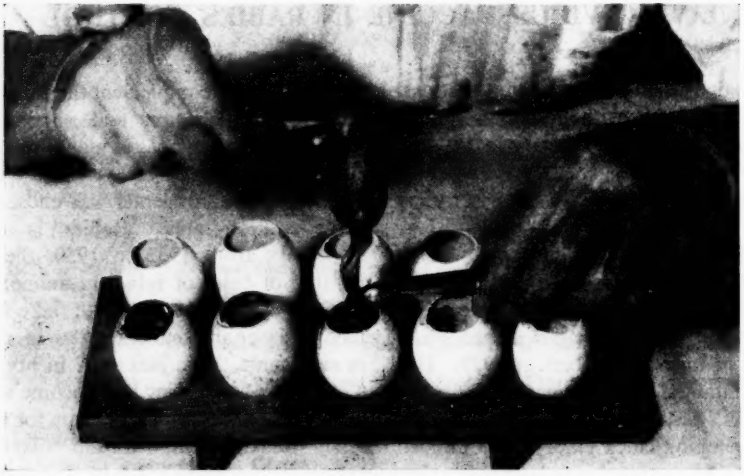
Laboratory studies and limited field trials since 1950 had shown the harmlessness, when injected intramuscularly, and the strong immunizing power of Flury-strain vaccine for dogs. This vaccine seemed to confer an immunity of three years or more, displaying its superiority in this respect over inactivated nervous-tissue vaccines, particularly phenolized vaccines. However, the efficacy of the vaccine had not yet been proven under field conditions on a nation-wide scale. WHO therefore decided to sponsor an antirabies pilot project in an area of limited size where rabies was enzootic. In this campaign, compulsory vaccination of dogs with living modified virus vaccine prepared in chicken embryos was to complement the usual control measures—registration and supervision of dogs, elimination of stray dogs, wildlife control, etc.

The Republic of Israel was chosen as the demonstration area. Rabies is enzootic in Israel : from 1932 to 1950, the annual number of cases of rabies in animals varied between 50 and 333. In 1949, there were 138 laboratory-confirmed cases (80 in dogs, 27 in ruminants, 20 in jackals, 7 in horses, and 4 in cats) ; and rabies had become a serious health problem. Another reason for selecting Israel for the demonstration was that the veterinary and public-health services of the country were well organized, adequately staffed, and able to carry out the control measures, which were to be under the technical guidance of WHO.[1]

Two types of living modified virus vaccine, of either the Flury or the Kelev strain, prepared in the chicken embryo (see fig. 1), were used in this campaign. The first was a Flury-strain vaccine which was produced and freeze-dried in New York and shipped to Israel by air in cartons containing dry-ice. Upon arrival in Israel, the vaccine was placed under refrigeration (+4° to +8°C). It was subsequently taken in thermos flasks packed in ice to the field of operations and used within one to two hours after restoration with diluent. The vaccine, when restored with 3 ml of distilled water, contained a $33\frac{1}{3}\%$ suspension of infected whole chicken-embryo. Approximately 26,000 doses of this vaccine were supplied to the health services of Israel. The second type of vaccine consisted of 2,000 doses of Flury strain and

[1] An article by M. M. Kaplan, Y. Goor & E. S. Tierkel, published in *Bull. Wld Hlth Org.* 1954, **10**, 743, describes the various phases and the results of this campaign.

FIG. 1. HARVESTING INFECTED EMBRYOS FROM WHICH VACCINE IS PREPARED



By courtesy of Dr. F. Perez-Gallardo, Madrid

2,000 doses of Kelev strain prepared by the Virus Laboratory of the State Veterinary Service, Haifa.

Municipal and State veterinarians and their assistants carried out the vaccination and registration of dogs, which was preceded by an intensive publicity campaign. The dogs received 3 ml of the vaccine, injected intramuscularly into the posterior fleshy muscles of the thigh. At the beginning of 1952, it was estimated that almost 90% of all dogs of 6 months or over—more than 15,000 dogs—had been vaccinated. Other control measures were also applied. In towns, stray dogs were destroyed in gas chambers ; in rural areas, they were shot. The carcasses of donkeys into which strychnine was introduced were used as bait in jackal-reducing programmes. Quarantine stations for the detention and observation of rabies-suspect dogs were established in five localities.

The results of the campaign were immediately apparent. While in 1950 the number of cases of rabies was 44—a figure which, it must be admitted, indicated a natural recession of the disease in comparison with previous years—in 1951 it was 8 ; in 1952, 10 ; and in 1953, 3 (see fig. 2). One of two cases of rabies which appeared among the vaccinated dogs may be considered as a vaccination failure.

The problem of rabid jackals, which had been a concern to cattle owners, also seemed practically to disappear. The explanation may be that the elimination of canine rabies removed an essential link in the rabies-transmission cycle of jackals.

It is impossible to evaluate precisely the role that compulsory immunization of dogs with living virus vaccine may have played in the elimination of rabies as a public-health problem in Israel. There are various reasons, however, for considering vaccination as the principal factor. Although numerous measures had been satisfactorily applied in the years preceding the campaign—e.g., registration of dogs, reporting of cases of rabies, laboratory diagnosis, elimination of stray

FIG. 2. MONTHLY INCIDENCE OF RABIES IN ANIMALS BEFORE AND AFTER MASS VACCINATION OF DOGS IN ISRAEL: MAY 1948 – JUNE 1953

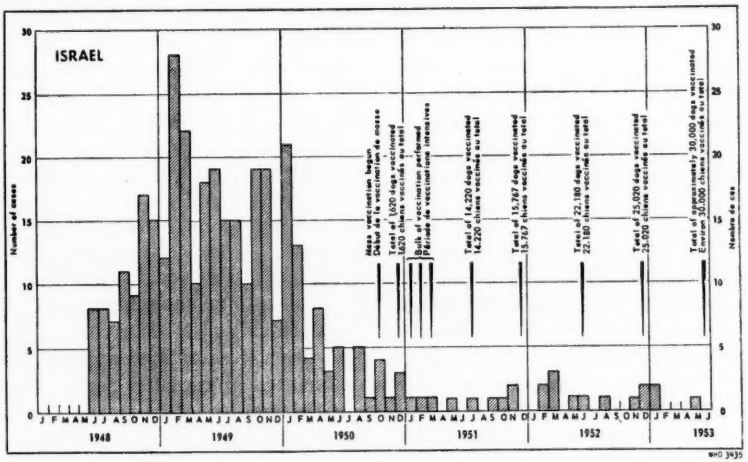
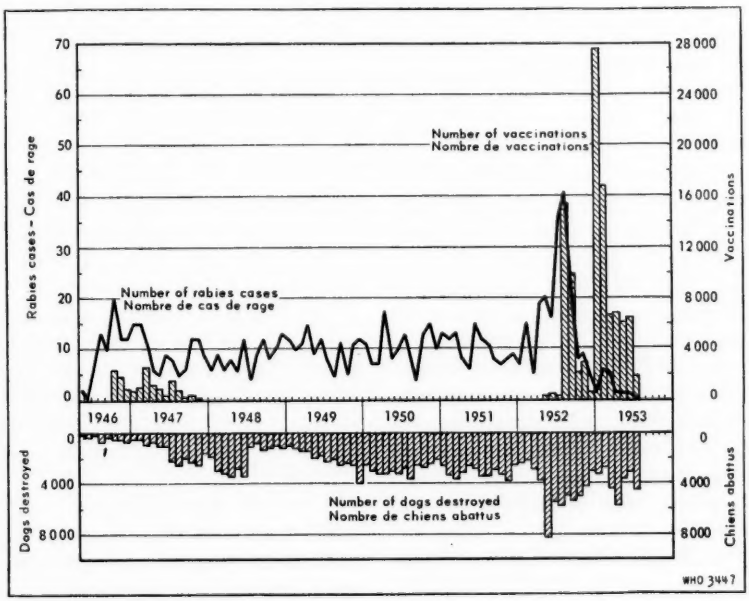

ISRAEL
Number of cases
Nombre de cas
Mass vaccination began
Début de la vaccination de masse
Total of 1,620 dogs vaccinated
1,620 chiens vaccinés au total
Bulk of vaccination performed
Période de vaccination intensives
Total of 14,220 dogs vaccinated
14,220 chiens vaccinés au total
Total of 15,767 dogs vaccinated
15,767 chiens vaccinés au total
Total of 23,180 dogs vaccinated
23,180 chiens vaccinés au total
Total of 25,020 dogs vaccinated
25,020 chiens vaccinés au total
Total of approximately 30,000 dogs vaccinated
Environ 30,000 chiens vaccinés au total
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J
1948
1949
1950
1951
1952
1953
WHO 3435

FIG. 3. INCIDENCE OF CANINE RABIES IN RELATION TO DOGS VACCINATED AND TO DOGS DESTROYED IN MALAYA DURING THE PERIOD MAY 1946 – JULY 1953



animals, and destruction of wildlife reservoirs of the disease—these measures had not sufficed to bring rabies under control. This objective was not attained until the mass vaccination of dogs was introduced.

Further evidence of the efficacy of vaccination of dogs is provided by reports from Malaya,[2] where an active antirabies campaign was undertaken, also with WHO technical guidance and collaboration. There, compulsory vaccination of dogs, particularly with Flury virus, succeeded in controlling the disease, which, enzootic since 1924, had become an alarming health problem in 1952 (see fig. 3).

[2] See article by C. W. Wells in *Bull. Wld Hlth Org.* 1954, 10, 731.

* * *

Since this article went to press, information has been received from Israel of a recrudescence of rabies during the first half of 1954. Thirty-three cases have been reported in animals (30 dogs, 2 cows, and 1 horse). One human fatality also occurred.

It is significant that none of the cases in dogs were in vaccinated animals. Because of financial difficulties, the control of stray dogs was relaxed in the latter part of 1953 and the first half of 1954. This explains the increase in the number of cases and emphasizes the necessity of stray-dog control along with vaccination procedures. Steps are being taken by the Israeli Government to resume stray-dog control. Of interest is the fact that most of the cases occurred in puppies under six months of age in one district—the suburbs of Haifa. In accordance with recent experimental results, puppies are now being vaccinated at two to three months of age instead of waiting until they are six months old, as was done during the early part of the campaign in Israel.

MENTAL HEALTH IN CHILDHOOD

Western Pacific Seminar

WHO's Western Pacific Region offers unusual opportunities for the study of health problems against a background of great diversity of peoples and cultures. Such an opportunity was afforded in the summer of 1953 by a seminar on mental health in childhood, sponsored by the Government of Australia and WHO and held in Sydney. Participants in this two-week seminar represented at least seven different professional disciplines and twelve countries or territories [1] which gave a varied picture of stages of economic and social development and of ways of child-rearing. Though emphasis was on Western knowledge and practice, it was possible to compare traditions and customs of East and West and their effects on the mental health of children.

The following account, which touches on only a few of the subjects covered by the seminar, is drawn from a report prepared and issued by the Institute of Child Health of the University of Sydney, the agency responsible for the organization of the seminar.

The child as an individual

The purpose of the seminar, as stated in an orientation lecture, was "to examine the early development of personality, with par-

[1] Australia, China, Hong Kong, Indonesia (South-East Asia Region), Japan, Malaya, New Guinea, New Zealand, Philippines, Sarawak, Singapore, and Thailand (South-East Asia Region).

ticular reference to factors that make for good or poor health, and to consider how a knowledge of that subject [could] be applied in programmes of child welfare, child health, and education ". Personality was defined as " the whole person, each person being unique and the development of his interacting somatic, psychological, and sociological systems tending towards integration ". The approach to the study of personality development in relation to mental health was a positive one, it being considered that " the most effective means of preventing mental illness [is] to improve mental health ".

The formation of personality has its roots in the basic genetic endowment of the individual. Since this basic endowment is different in each person, reactions to the life experiences which subsequently mould the personality also differ.

" In infancy, only the beginnings of personality exist ; for the baby, as an individual, makes minimal contact with the environment. The raw material is there, but the process of fashioning a 'self' is long and complex. Individual differences in personality traits are noticeable, however, within the first few weeks of life—some say within the first ten days.... The processes by which personalities develop are the same for... all, but the end results are unique and specific to the individual."

The processes of personality development may be summarized under three headings: maturation, adaptation, and learning. The first, maturation, " depends chiefly on the central nervous system, sensory development, and neuromuscular co-ordination ". Adaptative behaviour, while being partly dependent on maturation, requires " the ability to act purposefully and in relation to a goal, to satisfy one's needs, and to profit from past experiences ". Learning, which is perhaps the most important of the processes, may be of several types :

(1) contagion—the earliest type of learning, in which the infant feels the emotional state of the adult and reacts accordingly ;

(2) conditioning—in which the individual comes to associate a certain kind of situation with an appropriate response, so that the reaction becomes automatic and habitual ;

(3) communication—a type of social learning which is direct and purposeful and may be either verbal or non-verbal ;

(4) association of experiences.

These processes " lead to a gradual awareness of the self, as distinct from the environment, and later development extends and enlarges the concept of self through the individual's ' private world ' ". The private world of the individual is part of his effort to adapt his own needs and wishes to the internal, geographical, social, and cultural environment in which he must function. It has as its core the image which the individual develops of himself and which he maintains by various mechanisms of adjustment. Sometimes this image conflicts with the self that would win social approval, so the individual is at pains to conceal his true self, to guard his private world. The way in which a person's private world is formed is fundamental to the development of his personality, for the concept of self that results determines what he is and does, how he feels towards others, and to what he may aspire.

Psycho-analytical theory has contributed much to knowledge concerning the formation of the child's private world, the reasons for the defences which are built up, and the mechanisms used in making the required social adaptations. It has been proved that even in the newborn child there are instincts directed not towards self-preservation but towards finding an object that gives gratification and pleasure. The first such object is, of course, the mother, so that the infant's primary " object relation " is with his mother. In Freudian terminology, the instincts that are the vehicles for establishing object relations are known as the infantile sexual

(= pleasure-seeking) and aggressive instincts. The object relations in which these sexual and aggressive drives are manifested are the source of conflict and anxiety, changing in character as the child develops. His helplessness and slow maturation, making impossible comprehension and fulfilment of his desires, plus the mores of his society, force adaptation to given patterns and lead to his " socialization ". This socialization process is aided by many mechanisms, chief among which are identification (e.g., with the parents) and sublimation (e.g., through play, in which instinctual demands are led into social channels).

Social development is inextricably interwoven with emotional development and, like the latter, usually starts with family relationships. The mother-child relationship is particularly important, but the role of the father is beginning to be given increasing attention. " Patterns of behaviour develop in response to parental attitude and example, as the child is influenced by disciplinary measures, indications of approval or disapproval, and the degree of consistency and accessibility of the parents." Play activities and contacts with other children provide other essential stimuli to development. Gradually the child reaches " a state of harmonious accommodation between some degree of self-direction and conformity to social requirements ".

The child in relation to the community

The mental health of the child, as manifested in his personality development, must be viewed in relation to the society of which he forms a part. It was with regard to this aspect of mental health in childhood that the Western Pacific seminar provided study material of a varied nature. Some of the more interesting contrasts in patterns of child care, as noted in the course of the seminar, are briefly reviewed below :

. . . In Asian-Pacific societies, the father often shares the care of the child almost equally with the mother, in contrast with the conventional Western idea of child care being " women's work ". The later idea is, however, beginning to undergo a change in many middle-class families in England and the USA, where the father is taking a more active part in attending to the physical needs of his children.

. . . Feeding the infant is, in some respects, much more permissive in Eastern than in Western cultures, though the trend in some Western countries is towards increasing permissiveness—letting the infant eat when he wishes and how much he seems to require (" demand feeding ").

. . . Suckling is apt to be long continued in Eastern societies—often for more than a year and up to two or three years among certain peoples.

. . . Discipline of the young child tends to be less rigid in form and more diffuse in exercise in Eastern than in Western families. " More kin share in it, and less harshly. Discipline and education are apt to be pragmatic, to be exercised in respect of actual situations as they occur rather than in form of response to general abstract rules." There is less interference with the natural growth and development of the child.

. . . Generally speaking, the child in Asian-Pacific societies is encouraged at an early age to relative independence of its parents, owing to a wider family circle, the semi-public nature of much domestic life, a share in daily chores, and extensive contacts and relations with other households.

In both the East and the West, the pattern of family life, and consequently of community life, is rapidly changing. In the East, the influences of industrialization and Western culture are being felt ; in the West, two opposing developments are apparent, " the

one represented by the claim of each family member for individual expression, and the other, an increasingly organized, dehumanizing socio-economic system within the community". The relevance of such changes to the mental health of children is evident : the insecurity felt by parents as a result of these influences is bound to have a profound effect on their children. Although there is a need for simplification of emotional relations and controls, modern community life tends to complicate rather than to simplify the material environment of the young child. It is the responsibility of the parents to try to create some stability, based on consistency of action with regard to guidance and discipline.

A note of warning was sounded by the seminar participants : in attempting to heed the advice of "experts" on child care, mothers may be prevented from enjoying their children, and the development of a satisfying relationship between mother and child—the most essential element in the mental health of the child—may thereby be impeded. All the propaganda directed at mothers may actually create rather than allay anxiety about the perils and difficulties of child bearing and child rearing, and may even promote the mental ill-health of children.

INTERNATIONAL SANITARY REGULATIONS

Two Years' Experience

The adoption by the Fourth World Health Assembly of the International Sanitary Regulations was hailed by Dr. L. A. Scheele, Surgeon-General of the US Public Health Service and President of the Assembly, as "the greatest step forward ever recorded in this oldest field of international public health".[1] The first of October 1954 will mark the second anniversary of the entry-into-force of the Regulations ; two years' experience of their application makes possible some evaluation of their efficacy.

At the end of 1953, as noted in the Annual Report of the Director-General,[2] all but six of the active Member States of the Organization were parties to the International Sanitary Regulations. The position on 2 July 1954 is illustrated by fig. 1 and its accompanying table.

Historical background

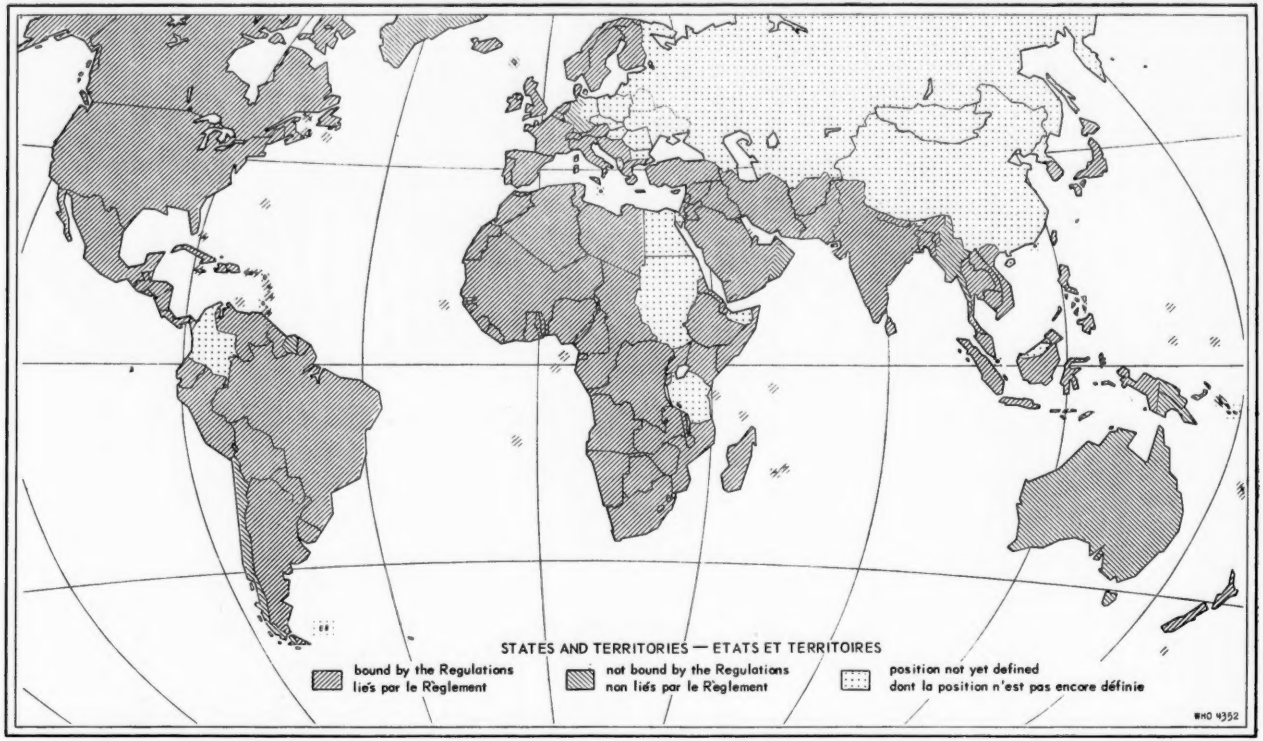
International agreement to limit the spread of pestilential diseases was first attempted in 1851, in Paris ; but it was not until 1892 that the first international convention was drawn up, in Venice. This first convention was followed by a long series of international agreements dealing with the control of one or more of the pestilential diseases in international traffic, each concerned with a specific subject and none entirely replacing a previous one on the same subject. In the period immediately following the Second World War, there were more than 12 conventions or similar agreements in force, and the situation was therefore somewhat confused and complicated.

WHO entered the scene in 1946. The Organization's Constitution provided for the establishment of international health regulations and created a mechanism by which such regulations could be given a flexibility which would enable them to keep pace with changing conditions and scientific advances. Legally the Constitution also took an important step in so far as international health regulations were concerned : it stated that any such regulations would come into

[1] *Chron. Wld Hlth Org.* 1951, 5, 206
[2] *Off. Rec. Wld Hlth Org.* 1954, 51, 42

FIG. 1. INTERNATIONAL SANITARY REGULATIONS

Position at 2 July 1954*


STATES AND TERRITORIES — ETATS ET TERRITOIRES
bound by the Regulations
liés par le Règlement
not bound by the Regulations
non liés par le Règlement
position not yet defined
dont la position n'est pas encore définie
WHO 4352

The map gives a general picture of the position of States and territories with regard to the International Sanitary Regulations as at 2 July 1954. A detailed list of the States and territories bound by the Regulations with and without reservations, of those not so bound, and of those whose position is not defined is contained in the accompanying statement (page 274). Territories are classified under the names of the State or States responsible for their international relations.

* Surinam became bound by the Regulations, with reservations, on 9 August 1954.

force for all Members after due notice had been given of their adoption by the Health Assembly, except for those Members who had notified the Director-General of rejections or reservations before a specified date. This meant that no national legislative action was required by any State that had ratified the WHO Constitution in order for the regulations to become law.

Early in its existence the WHO Interim Commission established an expert committee to prepare a revision and merger of existing sanitary conventions. This revision was to take into account recent advances in the epidemiology and control of the major pestilential diseases. A special subcommittee was formed to study the sanitary control of the Mecca Pilgrimage. A first draft of the new International Sanitary Regulations was drawn up and was submitted to governments and interested international organizations for comments and suggestions ; eventually a draft text was prepared. This draft was considered by a special committee of the Third World Health Assembly, which formulated a final text. On 25 May 1951, the Fourth World Health Assembly, after making some amendments, unanimously adopted the text of the International Sanitary Regulations, as WHO Regulations No. 2.[3]

In his notification to Member States of the adoption of the Regulations, the Director-General specified that rejections or reservations must be received by 11 March 1952 or, with respect to overseas and outlying territories, by 11 December 1952. Of the 89 countries that could have submitted reservations, only 25 did so. The total number of reservations was 73, of which 35 were accepted, with or without modification, and 38 were rejected. Eleven of the submissions were regarded as proposed amendments to the text of the Regulations. The Fifth World Health Assembly considered all these reservations and took decisions which were subsequently communicated to Member States for relevant action. In most instances the decisions of the Assembly were accepted. On the date of entry into force of the Regulations, 58 countries were bound by them—53 without reservations, and 5 with reservations. The Sixth World Health Assembly considered reservations submitted by Member States on behalf of their overseas and outlying territories. The decisions of the Assembly were communicated to the Member States concerned.

It was understood by several of the American republics that separate action was required by States parties to the Pan American Sanitary Code to abrogate those of its provisions which referred to international traffic and quarantine. A protocol providing for such abrogation was drawn up and opened for signature at Havana on 24 September 1952.

Application of the Regulations

Many problems have arisen in applying the new International Sanitary Regulations. As pointed out by the Director-General in his report on the first year's application of the Regulations :

" This initial period must have been a difficult one for national administrations, local authorities, transport companies and individual travellers : procedures and practices which had been followed for a century or more had to be changed ; measures hitherto thought necessary for the security of a country from the importation of quarantinable disease had to be amended or suppressed entirely ; national legislation in almost all countries had to be revised." [4]

However, most of the difficulties have been met without undue complication :

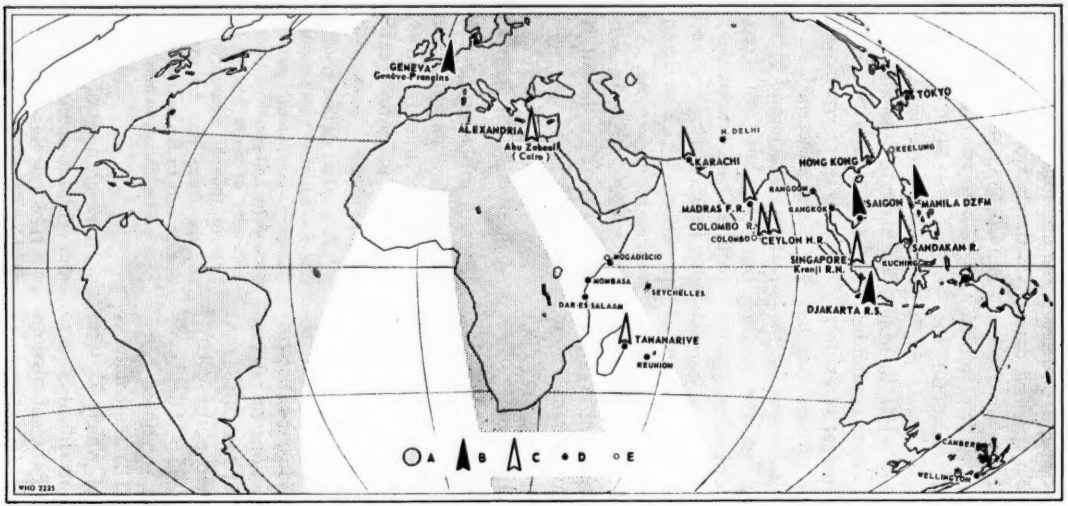
" There [has been] much correspondence between administrations and the Organization about such difficulties ; ... almost without exception, the advice and opinions given by the Organization and the requests that it has made to Member States to alter

[3] Contained in *Wld Hlth Org. techn. Rep. Ser.* 1951, 41

[4] *Off. Rec. Wld Hlth Org.* 1954, 51, 42

* Surinam became bound by the Regulations, with reservations, on 9 August 1954.
responsible for their international relations.

FIG. 2. WIRELESS STATIONS TRANSMITTING WHO RADIO-TELEGRAPHIC EPIDEMIOLOGICAL BULLETINS *



A = Areas reached by Genève-Prangins stations
B = Stations transmitting daily
C = Stations transmitting once or twice a week
D = Stations receiving the Bulletin from Kranji R.N.
E = Stations receiving the Bulletin from Saigon

* For the list of stations transmitting the Bulletins, see page 263, No. 26, of the *Weekly Epidemiological Record.*

procedures or modify measures have been so acted upon as to show clearly the desire and the intention of States throughout the world to apply the International Sanitary Regulations in a spirit of mutual co-operation, understanding and goodwill.

" Not one dispute as to the application of the Regulations had to be referred to the Committee on International Quarantine for consideration. There were . . . several points on which the committee was asked for interpretation or recommendation ; but none called for ' arbitration '. This also shows the friendly and co-operative attitude which has been apparent in this introductory phase of the Regulations and which augurs well for their success." [5]

A detailed report on the working of the Regulations, as seen by Member States, other bodies, and the Organization, was prepared by the Director-General for the first meeting of the Committee on International Quarantine and has since been kept up to date as additional information has been received from States party to the Regulations. This report and other documentation concerning the Regulations—including that relevant to the particularly difficult problem of delineation of yellow-fever endemic and receptive zones, a subject much discussed at the Seventh World Health Assembly—are being published in *Official Records of the World Health Organization* No. 56.

Epidemiological information

Essential to the application of the International Sanitary Regulations is the dissemination of epidemiological information, so that health authorities may have knowledge of the presence of communicable diseases in other countries and thus be prepared to take steps to prevent importation of the infection into their own country. Collecting and transmitting such information is one of the most important functions of WHO.

National administrations should communicate to WHO, as early and as rapidly as possible, " all items which they have undertaken to supply to the Organization under the International Sanitary Regulations and any other information which they judge to be of importance to international traffic or of interest to other health administrations ".[6] Once this information is received by WHO, it is disseminated by the most appropriate means : broadcast by the radio stations at the Organization's disposal (see fig. 2); sent to health administrations, by telegram or airmail; or published in the *Weekly Epidemiological Record*, issued from Geneva, or in similar weekly epidemiological bulletins sent out from Alexandria, Singapore, or Washington. Radio and telegraphic transmission is now facilitated by the use of the new Epidemiological Cable Code (CODEPID), which was published and distributed in 1953.

* * *

The International Sanitary Regulations have probably passed through their most crucial period and have begun to prove their worth. These Regulations, which " define the rights of millions of international travellers and protect the many more millions staying at home in countries . . . receptive to one or more of the quarantinable diseases ",[7] will not remain static but will be revised as further experience and changing conditions demand. Their successful application depends, in the future as in the past, on the " loyal co-operation and mutual comprehension " [8] of all countries.

[5] *Off. Rec. Wld Hlth Org.* 1954, 51, 42

[6] *Off. Rec. Wld Hlth Org.* 1954, 51, 43

[7] *Chron. Wld Hlth Org.* 1951, 5, 207

[8] *Chron. Wld Hlth Org.* 1951, 5, 211

BOUND : WITHOUT RESERVATION

Member States

Afghanistan
Argentina
Austria
Belgium
Bolivia
Brazil
Cambodia
Canada
China
Costa Rica
Cuba
Denmark
Dominican Republic
Ecuador
El Salvador
Ethiopia
Finland
France
Guatemala
Haiti
Honduras
Iceland
Indonesia
Iran
Iraq
Ireland
Israel
Italy
Japan
Jordan, Hashemite Kingdom of the
Korea
Laos
Lebanon
Liberia
Libya
Luxembourg
Mexico
Monaco
Nepal
Netherlands
New Zealand
Nicaragua
Norway
Panama
Paraguay
Peru
Portugal
Spain
Sweden
Switzerland
Syria
Thailand
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America
Uruguay
Yemen
Venezuela
Viet Nam
Yugoslavia

Overseas and Outlying Territories

Belgium
Belgian Congo
Ruanda-Urundi

France
Comoro Islands
French Cameroons
French Equatorial Africa
French Settlements in India
French Settlements in Oceania
French Somaliland
French Togoland
French West Africa
Madagascar and dependencies
Morocco (French Zone) [1]
New Caledonia and dependencies
St. Pierre and Miquelon
Tunisia [1]

Italy
Somalia

Netherlands
Netherlands Antilles
Netherlands New Guinea

New Zealand
Island Territories
Western Samoa

Portugal
Angola
Cape Verde Islands
Macao
Mozambique
Portuguese Guinea
Portuguese India
Portuguese Timor
São Tomé and Principe

Spain
Morocco (Spanish Zone) [1]
Spanish Guinea
Spanish West Africa

United Kingdom
Aden
Bahamas
Bahrain
Barbados
Basutoland
Bechuanaland
Bermuda
British Cameroons
British Guiana
British Honduras
British Togoland
Cyprus
Gibraltar
Gold Coast
Jamaica
Kenya
Kuwait
Leeward Islands (Montserrat, St. Christopher-Nevis, Virgin Islands)
Mauritius
Malaya, Federation of
Nigeria
North Borneo
Qatar
Rhodesia and Nyasaland, Federation of
St. Helena
Seychelles
Sierra Leone
Swaziland
Trinidad
Trucial Oman Sheikdoms
Uganda
Windward Islands (Grenada only)
Zanzibar

United States of America
Alaska
American Samoa
Guam
Hawaii
Pacific Islands (Caroline, Marianne and Marshall Islands)
Panama Canal Zone
Puerto Rico
Virgin Islands of the United States

France, United Kingdom
New Hebrides

Non-Member State

Vatican City

BOUND : WITH RESERVATIONS

Member States

Ceylon (in respect of Articles 37, 68, 74, 76, 104 and Appendix 3)

Greece (in respect of Article 69)

India (in respect of Articles 42, 43, 70, 74, 100 and Appendix 3)

Pakistan (in respect of Articles 42, 43, 70, 74, 100 and Appendix 3)

Philippines (in respect of Article 69)

Saudi Arabia (in respect of Articles 61, 63, 64, 69, A1, A6)

Union of South Africa (in respect of Articles 40, 42, 43, 76, 77)

Overseas and Outlying Territories

Netherlands
Surinam (in respect of Articles 17 and 56)

Union of South Africa
South-West Africa (in respect of Articles 40, 42, 43, 76, 77)

[1] Associate Member

NOT BOUND

Member States

Australia
Burma
Chile
Germany, Federal Republic [2]

Overseas and Outlying Territories

Australia
All territories

Denmark
Faroe Islands *
Greenland *

Non-Member States

Liechtenstein
Sultanate of Muscat and Oman

POSITION NOT YET DEFINED

Member States

Egypt *

Inactive Member States

Albania
Bulgaria
Byelorussian SSR
Czechoslovakia
Hungary
Poland
Roumania
Ukrainian SSR
Union of Soviet Socialist Republics

Overseas and Outlying Territories

Australia, New Zealand, United Kingdom
Nauru Island

Egypt, United Kingdom
Sudan

United Kingdom
British Solomon Islands *
British Somaliland *
Brunei *
Falkland Islands *
Fiji (including Tonga) *
Gambia *
Gilbert and Ellice Islands *
Hong Kong *

United Kingdom (continued)
Leeward Islands (Antigua * only)
Malta *
Sarawak *
Singapore *
Tanganyika *
Windward Islands (Dominica,* St. Lucia,* St. Vincent *)

Non-Member States and Territories

Andorra
Colombia
Mongolian People's Republic
San Marino
Tangier, International Zone

A decision is awaited pending the completion of constitutional procedures.

* Rejections or reservations made by territories marked with an asterisk have been considered by the World Health Assembly. Communications defining the position are awaited from the governments concerned.

Poliomyelitis

WHO will shortly publish a monograph on poliomyelitis, comprising 13 authoritative and well-illustrated articles by internationally known workers: J. R. Paul (USA), J. H. S. Gear (Union of South Africa), M. J. Freyche & J. Nielsen (WHO), R. Debré (France), W. Ritchie Russell (Great Britain), H. C. A. Lassen (Denmark), S. Gard (Sweden), A. J. Rhodes (Canada), J. F. Enders (USA), A. B. Sabin (USA), H. Koprowski (USA), W. McD. Hammon (USA), and A. M.-M. Payne (WHO). The subjects included are epidemiology, clinical aspects, virology, immunology, and control. This monograph provides an intensive survey of contemporary poliomyelitis research and should be valuable to clinicians and to public-health workers.

NURSING EDUCATION IN AFRICA

WHO Conference in Kampala

In Africa south of the Sahara, nursing education is still largely in the early stages of development, and nursing services and training vary considerably from country to country. Until recently, no attempt had been made to study the various training schemes so that those responsible for the development of health services, and of nurses' education in particular, might profit from the experience of others. In 1953 a nursing consultant of the WHO Regional Office for Africa made a survey of nursing education facilities and personnel in 15 territories of Equatorial Africa—Angola, Belgian Congo, French Equatorial Africa, French West Africa, Gold Coast, Kenya, Liberia, Nigeria, Northern Rhodesia, Nyasaland, Ruanda-Urundi, Somaliland Protectorate, Tanganyika, Uganda, and Zanzibar. Her report on the survey subsequently served as the basis of discussions at a conference, sponsored by WHO, on the development of nursing education in Africa south of the Sahara. This conference, held in the autumn of 1953 in Kampala, Uganda, was the first in the region on the subject of nursing. It brought together 33 delegates from 23 countries, to add to the information supplied by the WHO survey and to exchange views on nursing education needs, problems, and plans. A report on the conference, which includes annexes on the surveys of individual territories and contains valuable data not to be found elsewhere, has recently been made available.[1]

The conference was opened by Lady Andrew Cohen, wife of the Governor of Uganda, who, in recounting her impressions of a tour of a remote part of Uganda, set the scene for consideration of nursing education in relation to the social, economic, and cultural situation. Lady Cohen stressed the social aspects of training nurses in Africa : the need for preparing and aiding girls to assume a responsible position in communities in which conditions were far different from those encountered during their training ; the difficulties posed by eventual loss to the profession of many girls trained as nurses, and the utilization of their training in their subsequent roles as wives and mothers once they had left the profession ; and the problem of raising the status of the nursing profession in Africa. She also called attention to the desirability of emphasizing preventive medicine, of turning emphasis away from the building of hospitals and towards the building up of corps of health visitors and home nurses, and of promoting health education directed towards arousing health-consciousness in the community.

Different philosophies regarding the nursing profession were revealed during the conference, reflecting differences in national policies. The 11 countries of the Belgian, French, and Portuguese powers were represented at the conference solely by doctors, whereas the countries within the British sphere sent only nursing delegates. This seemed to indicate a fundamental difference in approach to nursing education : the former countries apparently consider that physicians should supervise the training and work of nurses ; the latter believe that nurses should be trained and supervised largely by qualified members of their own profession. Despite this divergence of opinion—and the consequent variation in ideas concerning the functions and preparation of nurses—there was " a broad base of agreement on goals,

[1] Unpublished document WHO/Nurs/26

though methods of attaining them were often diverse ".

The WHO survey had shown that there was a wide range of workers concerned with some or all aspects of nursing in Africa, and considerable differences in educational standards, length of courses, functions, grades, and titles. Both in the survey reports and in the conference discussions two distinct trends in development became apparent :

(1) a growth, comparatively recent, of interest in nursing as a career for African girls, paralleling gradual improvements in the general education of girls ; and

(2) a more or less general policy of giving a basic nursing course to various categories of male health workers—from first-aid and dresser grades to hospital or medical assistants—who, it was felt, would be an essential part of the health services of many areas for many years to come.

Although some consideration was given to the training of male health workers, the conference was devoted principally to the problems of the education of girls, since it seemed that, in the future, nursing services—particularly in urban and closely populated areas—would be increasingly carried out by women.

There was general agreement on the fact that trained midwives were needed everywhere. However, some kind of liaison with traditional midwives to improve their practices seemed advisable as an interim measure and a sort of preparation for the eventual acceptance of the trained midwife. The Nursing Consultant urged that the training of the midwife be combined with that of a general health worker, to produce a community worker who could encourage the development of preventive as well as curative health services. Such a worker would be in a good position to come into contact with the women of the community and, through them, to pass on health information and promote satisfactory health practices.

The loss of nurses through marriage and pregnancy and the employment of married women in nursing were subjects of considerable discussion. It was concluded that, even if a woman gave up her career upon marriage, her training would not be completely wasted " since she would use her knowledge for the benefit of her family and her community ". Opinions were varied concerning the employment of married women : while these women had more status in the community and were therefore valuable as nurses, especially in maternal and child health work, their family responsibilities were apt to cause frequent absenteeism and other difficulties.

Early in the conference it was pointed out that the training of nurses in countries of Africa presented special problems. As stated by the Nursing Consultant in her report,

> " it is not easy to plan a programme of nursing education which fulfils its first duty of preparing as many nurses as possible for a service the needs of which are so vast that one cannot yet assess them and, at the same time, establish nursing as a profession for African women with a status which will endure . . . the first demands large numbers, and to obtain these at present means acceptance of a low educational standard, while the second might presuppose a type of training which will establish a small group of elite ".

No uniform pattern of education or ready solution for these problems could be suggested by the conference participants. It was stressed, however, that in all training programmes instruction in the care of patients must be combined with self-development of the student. Some concern was expressed " lest efforts to place the training of nurses on the highest possible level were aimed at the advancement of the profession rather than at serving the patient ", but the answer was that this danger would be obviated by making all training " patient-centred ".

Awareness of the significance of their cultural background in the training of African girls as nurses permeated the discussions.

It was felt that " African girls going into the nursing profession at this time were particularly exposed in their personal experiences during training to conflicts of cultural change brought about by the material, educational, and religious forces of European civilization in Africa ". Traditional beliefs were often in conflict with the Western ideas to which they were expected to adapt. Even the assumption of responsibility by unmarried girls represented a departure from tradition and added to the problem of gaining prestige for the nursing profession, since these girls usually had little status in the community. A number of suggestions were made as to how students could be helped to adjust to cultural changes and be prepared for their work. Careful selection of students—choosing girls from " suitable families "—was considered of basic importance. Another essential was understanding and sympathy on the part of all those concerned with teaching students, in order to reach the individual trainee, win her confidence, and " provide a sense of security . . . to dispel the cloak of apathy which surrounded the African whenever he felt confused and insecure " ; this could be facilitated by having Africans in senior educational posts " to interpret new values to students from within their own culture ". Other factors were the provision of good facilities, for housing and recreation as well as for teaching, and the granting of sufficient freedom in off-duty time to encourage self-development and self-discipline.

In summary, the report states : " . . . the building of the new profession of nursing for women in African society [rests] fundamentally on the status given to the nurse . . . ". Achieving the desired status depends on the recruitment of highly educated members of the community for nurses' training, gaining and keeping the support of influential groups of women in the population, and " the breadth and depth of education, technical and cultural, given to students ". The last point is particularly important. In the words of one conference participant :

" ' The principles upon which instruction is based, in association with the traditional African principles which constituted the student's initial basis of training, will help to build the African civilization of the future. This is the supreme purpose to the attainment of which the governments and specialized agencies have directed their efforts.' "

Reports of Expert Groups

SEROLOGICAL AND LABORATORY ASPECTS OF TREPONEMATOSES

After an interval of three years, the subcommittee dealing with the serological and laboratory aspects of treponematoses was convened for the third time. The subcommittee's report on this session is now available. [1]

" From an international viewpoint ", states the introduction to the report, " the nature and magnitude of the problem of treponemal infections overshadow by far that encountered in the non-treponemal venereal infections, and major emphasis continues to be placed by the subcommittee on the serology and laboratory aspects of the treponematoses."

Among the most important subjects discussed by the subcommittee were the production, control, and use of cardiolipin antigens ;

[1] *Wld Hlth Org. techn. Rep. Ser.* 1954, **79**. 50 pages. Price : 3/6, $0.50, or Sw. fr. 2.—, Published in English and in French.

the use of freeze-dried sera in the serology of syphilis ; the stability of blood and serum samples transmitted by post ; and the results obtained so far with the *Treponema pallidum* immobilization technique (TPI test).

The TPI test, which was basically still under research three years ago, has meanwhile been studied in more than 20 laboratories in Europe and elsewhere. A co-operative study among laboratories now carrying out the TPI test has been initiated by WHO ; and the efforts of serologists in several laboratories have resulted in a new test, the *Treponema pallidum* agglutination (TPA) test, which so far has given encouraging results, although " considerable time and extensive investigations . . . [will be] required before the place of this procedure in the serodiagnosis of the treponematoses can be evaluated ". While both the TPI test and the TPA test represent valuable supplements to available laboratory techniques, the subcommittee agreed that for the time being reliance must continue to be placed on the use of routine serological reagin tests, and that further work towards the standardization of antigens and serological methods is necessary.

The subcommittee noted that provisional international reference preparations of cardiolipin and lecithins had been established by the WHO Expert Committee on Biological Standardization.[2] These preparations have for some time been distributed by the Statens Seruminstitut, Copenhagen, to recognized laboratories to enable them to check the reactivity of newly produced batches. Cardiolipin, lecithins, and cardiolipin antigens stored at 37°C and 56°C for two weeks were found to remain unchanged in reactivity. It was agreed that further studies on this problem would be undertaken.

The subcommittee invited laboratories to publish their experience on the relationship between the sensitivity of cardiolipin antigen and the percentage of lecithin contained in it, and also on the experimental error in serological testing. It was recommended that antigen producers should check the keeping quality of their products with a view to recalling preparations likely to have become defective, and that health authorities should, in consultation with their leading laboratories, consider the central purchase of antigen.

The subcommittee examined several reports on the use of freeze-dried sera in the serology of syphilis and came to the conclusion that such sera from syphilitic donors had proved themselves to be sufficiently stable to be used for studies on sensitivity. It decided that the thermo-stability of reactive sera from non-syphilitics should be examined and that criteria for the selection of such sera should be established. Statistical evaluation of results from the testing of freeze-dried sera should be undertaken.

The subcommittee also studied a document listing the serological laboratories in Member States and their testing procedures, and found that more uniformity was desirable. The information collected from countries all over the world on the total number of samples examined per year, the seroreactions employed, the number of seroreactions used for each sample, and other technical points is given in an extensive annex to the report and provides interesting information for serologists. The subcommittee did not wish to publish a list of recommended methods for the serology of syphilis until adequate information on sensitivity and specificity was available, but it recommended that a manual on selected methods to be used by WHO field teams should be compiled.

The activity of the International Treponematosis Laboratory Center and of the WHO Serological Reference Centre was considered. The laboratory work done by the WHO field teams was studied in detail, and the importance of using serological testing in mass campaigns against all the

[2] *Wld Hlth Org. techn. Rep. Ser.* 1952, **56**, 8

treponematoses was emphasized. It was recommended that a field team should undertake studies on several tests in a representative area before taking any decision as to the most suitable test (or tests) to employ in the project. The chosen test should then be used to evaluate the effect of treatment on the serological results.

Review of WHO Publications

HEALTH STATISTICS *

Following an idea broached at the International Conference for the Sixth Revision of the International Lists of Diseases and Causes of Death, held in Paris in 1948, 29 countries have established national committees on vital and health statistics. The setting-up of these committees has been actively encouraged by WHO. Their aims are to co-ordinate activities relative to health statistics within each country, to stimulate the collection and use of vital and health statistics, and to provide a link between WHO and national institutions responsible for health statistics.

In 1953, the time appeared ripe for convening a first international conference of these national committees [1] in order to enable them to interchange ideas on the structure and functions they should have and on their relationship with international organizations such as the United Nations and WHO. The conference was held in October 1953 in London. It provided an opportunity to review the present status of some of the most important categories of health statistics. For instance, the types of health statistics needed in countries at different stages of development were discussed, and recommendations were made on means of obtaining these statistics and on the part WHO should play in helping to obtain them. Among the other important problems dealt with were those of how to secure a wide appreciation of the value and significance of health statistics, and of the best methods of training personnel for statistical work.

Many papers of a technical nature were prepared for the conference by recognized experts. Most of these papers have now been published, in full or in an abridged form, in a recent number of the *Bulletin of the World Health Organization*,[2] so that they might be available for use by public-health workers, medical statisticians, and others to whom they would be of interest and value.

In the first paper, P. M. Hauser discusses the application of sampling methods to vital-registration systems and vital statistics, showing the opportunities for their use and the advantages to be derived from them, both in the less developed areas of the world and in areas where more or less complete registration exists. In the second paper, F. F. Harris considers sampling methods in practice, giving a detailed account of their use in a sickness survey in Canada in 1950-51.

The essentially confidential nature of medical records must be respected in reporting morbidity and causes of death and in the use of statistical data. In two papers, M. G. Neurdenburg and M. J. Aubenque suggest how the principle of medical secrecy may be adhered to without impairing the value or fulness of statistics and give

* This review is drawn from the introduction to a number of the *Bulletin of the World Health Organization* which is devoted to this subject.

[1] The report of the conference has been published in *Wld Hlth Org. techn. Rep. Ser.* 1954, **85**.

[2] *Bull. Wld Hlth Org.* 1954, **11**, Nos. 1 and 2

examples of the law and practice in the Netherlands and in France.

A problem of some concern to medical statisticians is how to secure the co-operation of persons supplying statistical data. Authors from six different countries—M. J. Aubenque (France), R. M. Blaikley (England), F. F. Harris (Canada), R. B. Lal (India), M. G. Neurdenburg (Netherlands), and R. de Shelly Hernández (Venezuela)—give their views on this problem. Somewhat allied to this is the question of securing a wide appreciation of health statistics, a matter discussed by A. M. do Amaral Pyrrait, M. J. Aubenque, R. Benjamin, J. S. de Groot, and R. Kohn.

In another paper, Dr. Percy Stocks describes the types of health statistics that would be of the greatest practical value to countries with only slightly developed public-health and vital-registration systems, and the means by which these statistics may be obtained.

H. L. Dunn outlines the objectives underlying future patterns of work of national committees on vital and health statistics, relating the aims of national systems of statistics to the aims of the committees.

Two papers from the Demographic and Social Statistics Branch of the Statistical Office of the United Nations are included in this number of the *Bulletin* : the first is a provisional compilation of the names of the agencies responsible for vital registration and vital statistics at the national and local levels in different countries ; the second analyses the types of vital statistics available in the 58 major statistical areas of the world. These studies are followed by a summary table, prepared by WHO, of some important health statistics available in different countries. Finally, 20 other contributions dealing with various aspects of vital and health statistics are to be found in the section *Notes and Reports.*

THERAPEUTIC, PROPHYLACTIC, AND DIAGNOSTIC SUBSTANCES

There is considerable diversity in problems with regard to therapeutic, prophylactic, and diagnostic substances which require to be solved at the international level. Such problems as the production of an international pharmacopoeia and the compilation of lists of international non-proprietary names for drugs have been described in previous issues of the *Chronicle.* The present article deals with two others, biological standardization and the control of addiction-producing drugs, to which a recent number of the *Bulletin of the World Health Organization* [1] is devoted.

[1] *Bull. Wld Hlth Org.* 1954, 10, No. 6. The present article is drawn from the introduction to this number of the *Bulletin.*

Standardization

The international standardization of therapeutic substances has a long history, extending back as far as 1897, when Paul Ehrlich made internationally available a standard preparation of diphtheria antitoxin and defined a unit of antitoxic potency in terms of that preparation. This pioneer work was consolidated by the Health Organisation of the League of Nations as one of its earliest actions : in 1922, it formally recommended adoption of the Ehrlich Unit as the International Unit of Diphtheria Antitoxin and defined this international unit in relation to the International Standard for Diphtheria Antitoxin, which was to be maintained at,

and distributed from, the Statens Serum-institut in Copenhagen under the auspices of the League of Nations. The establishment of international standards and international reference preparations and the definition of international units of therapeutic potency in terms of these standard preparations have continued steadily since that date, uninterrupted even by the Second World War, so that as many as 59 of these standards and reference preparations are now maintained on behalf of WHO by the Statens Serum-institut and by the National Institute for Medical Research in London.

Since specimens of the international standards are regularly distributed to duly authorized laboratories throughout the world, they naturally become depleted in the course of time and have to be replaced. The first paper in the *Bulletin*, by K. H. Coward and J. O. Irwin, illustrates the international collaborative effort involved and the special problems—often peculiar to each particular standard—which arise when one of these preparations (in this case the International Standard for Vitamin D) needs to be replaced. There follow two papers by J. H. Humphrey and his colleagues which show some of the particular considerations that have to be borne in mind when providing international standards or reference preparations of substances, such as Penicillin K and Dihydrostreptomycin, whose chemical composition is unequivocally established and which can be produced in crystalline form.

Before the Second World War, the Health Organisation of the League of Nations planned an international collaborative investigation of a proposed International Standard Antityphoid Serum, intended for the serum therapy of typhoid fever and prepared by A. Felix and G. F. Petrie. Because of the efficacy of chloramphenicol, the serum therapy of typhoid fever is, however, no longer routinely practised, and the original purpose of this proposed standard has therefore lost its validity. But, in describing this provisional international standard, in the next paper of this series, A. Felix makes a case for its usefulness at the present time in his proposed procedures for the standardization of typhoid vaccines. Furthermore, the provisional International Standard Antityphoid Serum is of topical interest in that it forms the basis for one of a series of eight proposed international standard agglutinating sera, prepared by A. Felix and H. S. Bensted with a view to standardization of the serodiagnosis of typhoid and paratyphoid fevers. A contribution by these workers describes the proposed international standards and gives suggestions for their collaborative international investigation and utilization.

The provision of international standard preparations for serodiagnostic purposes, such as those envisaged for the typhoid group of fevers, is quite a recent departure from the time-honoured practice of providing standards almost exclusively for therapeutic or prophylactic substances. In fact, until 1951 the only international biological standards not of a therapeutic or a prophylactic nature were the Standard for Old Tuberculin (1931) and the Standard for Purified Protein Derivative of Mammalian Tuberculin (1951). Although these are diagnostic preparations, they are, of course, not used for in vitro serodiagnosis. The first international standard preparation for use in serodiagnosis was that for Anti-*Brucella abortus* Serum, established in 1952, which is described in a paper by A. W. Stableforth. This standard is intended for use in both human and veterinary medicine—a fact which emphasizes the desirability of an integrated approach to the zoonoses by physicians and veterinarians. The author makes a plea in his article for the use of a " unit " notation instead of the traditional " titre " in measuring and describing the agglutinating activity of immune sera. This is a novel concept in immunological practice, and its advantages are

cogently set forth in two important contributions, by N. K. Jerne and by A. A. Miles, which are worthy of close attention by all laboratory workers engaged in serodiagnostic work.

Several papers deal with the establishment of new international standards. One of the reasons for establishing international biological standards is the widespread use of modified or purified variants of substances previously used equally widely in a different form. For example, A. Tasman and J. D. Lebret report an extensive investigation of a purified aluminium-phosphate-adsorbed diphtheria toxoid. Purification sometimes eliminates the possibility of accurately standardizing the purified substances in relation to a standard preparation composed of the original unpurified material, since it may be found that the log-dose-response curves obtained with the two types of material are not parallel—one of the essential requirements for a valid bio-assay. This question of the influence of the physical form of a biological preparation on the results of its assay in relation to a standard preparation of a significantly different physical constitution has, in fact, recently engaged the close attention of the WHO Expert Committee on Biological Standardization, which has accordingly found it desirable to establish two separate international standards for diphtheria toxoid—one of the plain purified material, and one of this material adsorbed onto aluminium hydroxide. A paper by M. Kurokawa and his colleagues may be regarded as a footnote to the general problem of the influence of purification of a toxoid on its immunological properties. D. A. Long and his colleagues, in another contribution, describe a refined technique for the assay of tuberculin, re-affirming by means of this technique that assays of one type of tuberculin in terms of another are not necessarily valid, and that the Expert Committee on Biological Standardization was therefore justified in its recent decision to establish an International Standard for Purified Protein Derivative in addition to the long-established International Standard for Old Tuberculin.

Addiction-producing drugs

The necessity for international action in suppressing the illicit production, manufacture, import, export, and consumption of drugs liable to produce addiction needs no stressing. Such action is largely legislative in character, the legislative authority resting in the main on a number of international conventions and their protocols. The task of providing for the implementation of these important documents is a primary responsibility of several organs of the United Nations—namely, the Commission on Narcotic Drugs of the Economic and Social Council, the Permanent Central Opium Board, and the Drug Supervisory Body. WHO is charged with the duty of advising on the highly specialized technical issues involved. The above-mentioned bodies therefore constantly call upon the Organization for guidance in such matters. For example, in a recent resolution of the Economic and Social Council, WHO was invited to provide, in consultation with the United Nations Secretariat, scientific information on a number of questions concerning addiction-producing drugs. A paper by O. J. Braenden and P. O. Wolff, who survey chemical aspects of synthetic substances with morphine-like effect, is the first of a series of studies carried out in response to this resolution, the full terms of which are given in a footnote to their article.

EPIDEMIOLOGICAL AND VITAL STATISTICS

Two recent numbers of the *Epidemiological and Vital Statistics Report* contain compilations of statistical data on certain diseases. One is devoted to mortality from gastritis, duodenitis, enteritis, and colitis, except diarrhoea of the newborn ; and to cases of, and deaths from, cholera, plague, smallpox, relapsing fever, influenza, and malaria.[1] The other lists cases of, and deaths from, cholera and plague, and gives tables on cases and deaths due to some of the principal zoonoses.[2] An annex to the latter contains a list of the notifiable zoonoses in various countries as on 31 December 1951.

A *Weekly Epidemiological Record* supplement [3] shows the position of countries and territories under the International Sanitary Regulations and lists the ports " approved and designated for the issue of deratting and deratting exemption certificates ", giving the situation as on 2 July 1954.

[1] *Epidem. vital Statist. Rep.* 1954, 7, 133

[2] *Epidem. vital Statist. Rep.* 1954, 7, 253

[3] *Wkly epidem. Rec.* 1954, 29, Supplement to No. 26, 2 July

Health Legislation

COMPARATIVE STUDY : MIDWIVES

No comprehensive study has yet been made of the national legislation governing the more important aspects of the profession of midwife, although the international congresses of midwives held before 1940 dealt with some of the legal problems connected with the training, professional and other responsibilities of midwives, and related subjects. In order to fill this gap, a study of the present tendencies in the legislation governing midwives and midwifery in about 30 countries has recently been published in the *International Digest of Health Legislation*.[1] It complements a previous study on nursing which appeared in the *Digest* in 1953.[2]

The profession of midwife is today becoming more closely associated with that of nursing, in contrast to its former independent position. This closer relationship between the two professions is one of the important facts that emerges from the study. It may be seen in the basic training of the midwife, which nearly always includes a partial, and sometimes a complete, nursing course ; in the fact that the two professions are frequently regulated by a common council ; and in the creation of such titles as maternity nurse or nurse-midwife. This closer relationship is the result of the historical development of the profession itself ; for, whereas about fifty years ago the scope of a midwife's practice was limited to giving assistance to a mother during delivery, advances in medicine and in public health in recent years have made it necessary for the midwife to extend her practice to include prenatal and postnatal care and to employ nursing techniques essential to ensure normal delivery and postpartum.

In certain countries, such as the USA, midwives have been almost entirely supplanted by physicians ; in others, such as England and Wales and the Scandinavian countries, they still play a leading role. In

[1] *Int. Dig. Hlth Leg.* 1954, 5, 433. The study on comparative legislation will be available as an offprint. Price : 3/6, $0.50, or Sw. fr. 2.—.

[2] *Int. Dig. Hlth Leg.* 1953, 4, 463. This is also available as an offprint.

countries where there is a shortage of medical and auxiliary medical workers, most mothers are still delivered by women whose knowledge of midwifery is more often than not empirical. The role of such indigenous midwives may thus be considered as of a historical nature ; and, although in such countries the health authorities are conscious of the need to provide qualified midwives and to restrict the practice of midwifery to such persons, their legislation nevertheless takes the existence of the unqualified midwives into account. Until a sufficient number of qualified midwives becomes available, and in order to safeguard public health, the legislation may require the indigenous midwives to follow an elementary course of training or grant them only a temporary licence to practise. In certain countries, the legislation stipulates that, in specified areas, only qualified midwives may practise. Even in the most advanced countries, the elimination of the unqualified midwife was achieved only many years after midwifery legislation was first enacted.

It is interesting to note that in some countries, such as the Federal Republic of Germany, England and Wales, Austria, and Finland, a midwife is required to follow refresher courses at regular intervals throughout her career. This obligation is peculiar to midwives. In Austria, failure to attend such courses may result in a midwife's permission to practise being withdrawn.

In general, the professional regulations are laid down in detail. Their aim is to set precise limits on the professional competence of the midwife and to prevent her from engaging in practices appertaining to the medical profession. The laws stipulate that breaches of these regulations, because they may endanger the life of a mother or her child, render the midwife concerned liable to disciplinary action. Moreover, in the event of accident, the penal or civil responsibility of the midwife may be involved. Nevertheless, more liberal tendencies may be discerned in certain countries with respect to the professional acts a midwife may perform. Thus, analgesia, episiotomy, artificial rupture of the foetal membranes, internal examination, the use of ecbolic substances, external or internal version, etc., may, under certain conditions, be practised by the midwife. The laws frequently specify the circumstances before, during, or after delivery under which a midwife must call in medical aid. In order strictly to limit professional practice and to prevent accidents, the laws list the instruments and drugs a midwife may employ. Further safeguards laid down in legislation are professional supervision and the obligation on every midwife to keep a register of cases.

The study of comparative health legislation on midwives includes the following chapters : definitions ; professional training (admission to training schools, midwives training schools, period of training, number of labours to be witnessed or conducted during training, examinations, refresher courses and further training courses, maternity nurses) ; administrative regulations (right to practise, recognition of foreign diplomas, midwives boards, membership of midwives boards, registration of midwives, removal from the register and suspension from practice, protection of title, uniform, and insignia) ; professional regulations (requirements of practice, calling in medical aid, drugs and instruments, supervision of midwives, records, deliveries at a midwife's home) ; conclusion.

The care with which legislators have framed the laws requiring midwives to undergo a thorough professional training and defining the rules of professional practice is but the reflection of the responsibility a midwife is called upon to bear. As stated in a report by the British Ministry of health, " it must be borne in mind that at each confinement [the midwife] is responsible for at least two lives ".

Notes and News

Malaria Conference for Western Pacific and South-East Asia Regions

A malaria conference for the Western Pacific and South-East Asia Regions will take place from 15 to 27 November 1954 in Taipei (Taiwan). Two principal subjects will be discussed. The first of these is the possibility of control, by residual insecticides or other means, of malaria transmitted by *Anopheles minimus flavirostris*, *A. mangyanus*, the *A. leucosphyrus* group, *A. sundaicus*, and the *A. punctulatus* group. In areas where these species are responsible for malaria transmission, considerable doubt has been expressed as to the possibility of controlling them by residual insecticide spraying. It has recently been shown in the Philippines, however, that malaria transmitted by *flavirostris* could be controlled by DDT (see below). Experimental pilot projects are now being carried out against *A. leucosphyrus* by WHO experts in Sarawak and against *A. punctulatus* in a Dutch project in New Guinea. Progress reports will be presented at the conference, and it is hoped that the discussions there may produce an agreement as to the most effective and economical methods to be applied in the control of rural malaria in areas where these vectors are responsible for the presence of the disease.

The second topic which is to be considered is national malaria-control programmes and their possible co-ordination. There are many countries in the two Regions which are carrying out nation-wide programmes of malaria control—from Afghanistan to Burma, from India to Ceylon, from the Philippines to Indonesia and to Taiwan. The conference will consider the organizational aspects of these various campaigns, their needs as regards trained personnel, and practical ways of obtaining more co-ordination in the operations within the countries and between countries and even between Regions. Such co-ordination might make possible reaching the end-point of malaria transmission and, eventually, interruption of residual spraying operations. The necessary safeguards against a return of malaria transmission once this has been achieved might be outlined by the conference participants.

WHO is inviting experts from most of the countries of the two Regions to attend the conference, and it is hoped that other experts will be sent by their respective governments. The conference participants will not, in any case, be government delegates. Various international and bilateral agencies have also been invited to send observers.

New Studies on the Sorption of Insecticides

One of the most harassing problems for the organization of malaria control in areas where rural houses are made of mud is the adsorption of the insecticides by the mud itself. It has been found that certain types of mud, after they have been sprayed with some insecticide formulations which allow the deposit of the insecticidal solid particles on the surface, presently adsorb the insecticides into the depth of the wall. If this penetration of the insecticide (such as DDT or dieldrin) into the wall takes place, the insecticide, having disappeared from the surface where insects might pick it up, becomes inactive. It would therefore be extremely important in any programme of malaria control to know what is the sorptive capacity of the mud locally employed for building houses.

WHO has been able to obtain the collaboration of a number of institutes in making tests, according to a uniform technique developed by the Organization with the help of several experts, of samples of mud sent by WHO field teams. The relevant institutes are the following : Communicable Disease Center, Savannah, Georgia, USA ; Istituto Superiore di Sanità, Rome ; Geigy, Basle ; Malaria Institute of India, Delhi ; Serviço Nacional de Malaria, Rio de Janeiro ; Institut Pasteur, Paris ; and the División de Malariología, Maracay, Venezuela. Results on samples submitted thus far will soon be available.

Development of Resistance of Anophelines to Insecticides

At its last session, the Expert Committee on Malaria [1] expressed some anxiety concerning the develop-

[1] *Wld Hlth Org. techn. Rep. Ser.* 1954, **80** ; see also *Chron. Wld Hlth Org.* 1954, **8**, 198.

ment of resistance of a few species of anophelines to DDT which had been described in several places. Although at the time this resistance did not appear to be of such a degree as to interfere with malaria control, it has since been found that it does, in fact, interfere with control (e.g., in Greece and in Java). The committee recommended that studies should be made of the susceptibility, and of the variations in susceptibility, of anopheline vectors to insecticides. WHO was able to secure the co-operation of the London School of Hygiene and Tropical Medicine and of the Istituto Superiore di Sanità in Rome as reference laboratories for such studies. At the same time, so that entomologists in the field might carry out preliminary tests on the susceptibility of the local vector species, standard testing outfits were prepared and sent to WHO teams. These outfits contain the materials and instructions necessary for performing the technique originally described by Busvine & Nash and reproduced and recommended by the Expert Committee on Malaria in its fifth report.[2]

Burma Malaria-Control Team Moves to New Sector

The WHO demonstration team which has been working in Burma since 1951 has moved from the Lashio area to new headquarters at Maymyo, near Mandalay. There, the team will continue to aid the Government of Burma in its five-year, country-wide, malaria-control programme.

The project in the Lashio area has been successful: spleen-rates in young children have shown a considerable decrease in the incidence of malaria; more than 100,000 persons have been protected by DDT-spraying; more manpower has become available because of fewer man-hours lost to malaria, and this has meant increased agricultural and industrial production; and medical and auxiliary personnel have been trained. In addition, the team's work has done much to promote health education and improvements in environmental sanitation.

Progress in Malaria Control in Indonesia

Tjilatjap is the headquarters of a demonstration team which has been operating in Indonesia since September 1951. In 1952 and 1953, about 163,000 rooms were sprayed. As in other demonstrations, attention in the Indonesian project is focused on bionomic studies of the vector, DDT-spraying, and training of personnel. Great attention is given to alleged changes in the behaviour of the local malaria vector, *A. sundaicus*, which might jeopardize the success of DDT operations. The public-health engineer in this project has also aided other health projects, giving advice on a water-supply improvement scheme for the cities of Telukbetund and Tandjungkaran, in South Sumatra.

Nigeria Launches Malaria-Control Programme

A malaria-control project which, in its initial phase, will cover 600 square miles (1,500 km²) and protect a population of 120,000 persons has been undertaken in Gwandu Emirate, Northern Nigeria. With the help of UNICEF, the Colonial Insecticides Research Committee, and WHO, the Government of the Northern Provinces will attempt to eliminate malaria, which kills more than 50,000 infants and children in Nigeria every year, causes much loss of man-hours of work and thus of the food which might be produced, and, in general, impedes progress and development of the country.

DDT, BHC, and dieldrin will be tried in spraying operations during the first year to determine which of them is the most suitable and easiest to apply. A modern, mobile laboratory will be used by team members to cover the area and study the results of the control measures.

Philippine Malaria-Control Project in Government Hands

The Government of the Philippines, aided by the Foreign Operations Administration of the USA, has taken over full responsibility for a malaria-control project in which WHO has assisted for two years. During this period pilot operations were carried out in Mindoro with DDT, and, in Northern Luzon, with dieldrin. The efficacy of DDT-spraying as a malaria-control measure in Mindoro has been proved, although the susceptibility to this insecticide of the malaria vector peculiar to the Philippines was in question. In addition, field trials of dieldrin were made: more than 5,000 houses were sprayed, and protection was afforded to a population of nearly 25,000. The results of these field trials are expected to be of value to other countries as well as to the Philippines.

[2] See *Wld Hlth Org. techn. Rep. Ser.* 1954, **80**, 30.

Sanitation Improvement Programme in India

A nation-wide scheme to improve environmental sanitation has been undertaken by the Government of India. This large-scale programme, which will be concentrated particularly on the problem of water supply, has been organized on the basis of a five-year plan. The central Government is allocating funds to State governments, which are to attempt to match the allocations. For rural schemes, grants will cover up to 50% of the cost ; for urban schemes, assistance will be given in the form of loans to State governments, repayable in 30 years.

The national programme includes (1) the establishment of intensive village water-supply and sanitation construction projects ; (2) improvements in municipal water-supply and sanitation ; (3) planned division of responsibilities between the Ministry of Health, the State ministries of health, villages, and bilateral or international agencies, such as WHO ; (4) a concentrated training programme ; and (5) the application of suitable standards of performance. Priorities are being assigned to determine where projects are first to be undertaken.

The need for sanitary improvements in India is apparent : it is estimated that there are more than two million deaths and fifty million cases of illness each year from cholera, dysentery and diarrhoea, and fevers (excluding malaria) that might be prevented by proper sanitation. A report by the Environmental Hygiene Committee of India in 1949 indicated that water supply in villages was a most urgent problem, the wells being poorly constructed and the water nearly always contamined. It also stated that less than 5% of the village homes had any kind of latrine, and that the soil was polluted in many places.

The five-year programme to improve environmental sanitation in India, through its organization and its integration with general efforts to promote health, provides a framework into which may be fitted the efforts and contributions of local groups and organizations, State projects, and the contributions in funds, materials, personnel, and other resources available from bilateral or international sources.

Useful Techniques for Rearing Insects

Entomologists might find valuable the techniques for rearing and handling body lice, oriental rat fleas, and cat fleas which are described by two entomologists from the United States Department of Agriculture.[3] The methods outlined are aimed to produce large numbers of insects of uniform age and vitality with a minimum of handling. Particularly useful to the field investigator would be the information on collecting and shipping body lice.

[3] Smith, C. N. & Eddy, G. W. (1954) " Techniques for rearing and handling body lice, oriental rat fleas, and cat fleas " in *Bull. Wld Hlth Org.* **10**, 127

BCG Assessment Teams

Two BCG assessment teams have been formed, one in the South-East Asia Region and the other in the Western Pacific Region. A third team is expected to begin operations in the Eastern Mediterranean Region in the last quarter of this year.

These teams represent a joint undertaking of the Tuberculosis Section at WHO headquarters, the Regional Offices, UNICEF, and the Tuberculosis Research Office. They have two functions. In countries where a BCG-vaccination programme is contemplated but not yet begun, they collect information on the prevalence of reactors to tuberculin in sample localities, to provide a basis for judging whether or not a mass campaign should be started and, if so, what age groups should be included and where the work should be concentrated. They determine the pattern of naturally acquired tuberculin sensitivity in order to provide the basis for tuberculin testing procedures for the contemplated mass campaign ; they ascertain how the population reacts to BCG vaccination (measured in terms of degree of allergy and lesions produced) ; and, finally, they make preliminary trials of the vaccine to be used in the mass campaigns of that country. It is expected that the key national personnel responsible for carrying out mass campaigns may get training and experience by working with the assessment teams. In many countries, the BCG campaigns have been under way for a long time. There the function of the team is to determine, on a sample basis, what has been achieved, and to provide information to correct or improve, when necessary, the techniques and procedures used.

Administratively, the assessment teams operate under the Regional Offices ; financially, UNICEF bears their expenses ; and, technically, they work under the direction of the Tuberculosis Research Office.

Syphilis in Ceylon

In 1951, at the request of the Government, a venereal-disease-control project was begun in Ceylon. As a preliminary step, serological testing of various population groups was undertaken to determine the actual prevalence of syphilis in the country. A report on the serological findings, by S. M. Laird, former Senior Adviser of the WHO demonstration team, has been published in the *British Journal of Venereal*

Diseases.[4] This report reveals that positive results were given by about 4% of the 6,067 pregnant women and of the 2,288 men in different occupational groups who were tested. The patients' histories and/or clinical examinations largely confirmed the serological results. It was concluded that the serological findings were reliable and provided a satisfactory, minimum estimate of the prevalence of syphilis in the population groups examined.

WHO and FAO Assist Burma in Improving Nutrition

Faced by the problem of serious and widespread malnutrition among a population with a general food surplus, the Government of the Union of Burma recently requested aid from the United Nations Food and Agriculture Organization (FAO) and WHO in the development of a national nutrition service and of a large-scale educational programme in nutrition.

In early August, WHO sent Dr. Simon Postmus, Senior Medical Officer at the Central Institute for Nutrition Research in Utrecht (Netherlands), to work as adviser to the Burmese Government. Dr. Postmus will be joined by Miss Wilhelmina Pranger, home economist, who has been assigned to the project by FAO. One of the important primary objects of the new project will be to carry out studies of various population groups to determine which kinds of nutritional deficiencies are most prevalent and which locally obtainable foodstuffs could be used advantageously by the people in securing a more healthful diet.

Dr. Postmus will act as technical adviser to the Government for two years, during which time Burmese personnel will be trained so that the work may be continued and extended once the international staff has been withdrawn. The establishment of a nutrition laboratory in Rangoon is also anticipated as part of the project.

Public-Health Diploma of University of Malaya Recognized

The General Medical Council of the United Kingdom of Great Britain and Northern Ireland has recognized the Diploma in Public Health of the University of Malaya as a registrable qualification under the Medical Act of 1950. This means that the possessor of the diploma is qualified for a public-health appointment anywhere within the British Commonwealth.

Recognition of this diploma is of interest to WHO because the Organization has aided the University of Malaya in developing its public-health course. The services of lecturers in health education, medical statistics, applied physiology, and applied nutrition have been provided by WHO. In addition, the Organization has granted fellowships to strengthen the faculty of the University and has supplied teaching equipment.

The development of the public-health course and its official recognition give Malaya, and possibly nearby countries, an opportunity to recruit medical officers of health from among their own people—doctors who have been trained in their own region.

Projects in Ethiopia

Dr. J. W. Tesch, Chief of the Communicable Disease Control Section of the City of Rotterdam, has been granted leave from his post to serve a second year as WHO Public Health Adviser to the Government of Ethiopia. Dr. Tesch will thus be able to continue to advise on strengthening the health services of the country and to co-ordinate WHO activities there. These activities are extensive, ranging from venereal-disease control and BCG vaccination to a project for training auxiliary health workers. The latter is particularly important : a programme, which is also being aided by the Foreign Operations Administration of the USA and by UNICEF, has been started to train sanitarians, public-health nurses, and various types of auxiliary personnel to help meet the requirements of Ethiopia's largely rural population until enough Ethiopian doctors have been graduated to take care of minimum health needs.

Poliomyelitis Incidence Lower

The *Weekly Epidemiological Record*[5] reports that this year there was a lag in the seasonal rise usually apparent in May and June in the incidence of poliomyelitis in most countries of Western Europe and in Canada. In the USA, however, the seasonal curve was similar to that recorded in 1953, and the number of cases provisionally reported was as high.

Shigella Centres

Two International Shigella Centres—one in Atlanta, Georgia, USA, and the other in London, England—are now in operation under formal arrangements

[4] *Brit. J. vener. Dis.* **1954, 30,** 98

[5] *Wkly epidem. Rec.* 1954, **29,** 275

made earlier this year between WHO, on the one hand, and the United Kingdom Medical Research Council and the US Public Health Service, on the other.

Protection against Roentgen and Isotopic Radiations

In a circular letter sent to Member Governments, the Director-General has requested that they forward to him copies of any laws or regulations they may have in force concerning the protection of technical workers against Roentgen and isotopic radiations, specifying whether or not these regulations cover the general public as well. This information is sought as a first step in implementing a resolution of the Executive Board [6] to the effect that this subject be studied, in consultation with the international and non-governmental organizations concerned and with Member States, and that a report be submitted to a future session of the Board. The resolution arose from a suggestion of the Government of Austria that WHO consider preparing international regulations for the protection of workers and the general public against Roentgen and isotopic radiations, the points to be covered by such regulations to include : (*a*) permissible dose for external radiation ; (*b*) permissible dose for internal radiation ; (*c*) protection against X-rays generated at potentials up to two million volts ; (*d*) protection against X-rays above two million volts and beta and gamma rays ; (*e*) protection against heavy particles, including neutrons and protons ; (*f*) disposal of radio-active waste ; and (*g*) handling of radio-isotopes.

ECOSOC Discusses WHO Report

The Economic and Social Council of the United Nations, at its eighteenth session (July 1954), discussed and noted with appreciation the annual report on the work of WHO.

Mr. B. Toussaint (France) considered that the regionalization of WHO activities had been fully justified. Mr. V. Montoya (Venezuela) also approved regionalization and expressed his satisfaction with the operation of the Regional Office for the Americas in Washington. He said, however, that the geographical distribution of the positions in WHO left something to be desired. A similar opinion was voiced by Mr. J. Leroy (Belgium), who stressed the necessity for an equitable geographical distribution in recruiting the Organization's experts. Similar views with regard to regionalization and the geographical distribution of positions were also expressed by Mr. M. R. Pico (Argentina) and Mr. S. S. Bajpai (India).

Mr. H. Hafiz-Ur-Rehman (Pakistan) regretted that certain sources of Technical Assistance had had to be discontinued by the Organization for lack of credits. Mr. P. Hotchkis (USA) also deplored the reductions made in certain activities of the Organization aud expressed the hope that the other countries would accord WHO greater financial support. Sir Douglas Copland (Australia) spoke of the need to provide for a stabilization of the budget of the Organization. Mr. Toussaint noted that the budget of WHO had risen from five million dollars to nine and a half million for 1955, without including the supplementary aid furnished by UNICEF, and foresaw a period of stabilization.

Mr. Hafiz-Ur-Rehman emphasized the importance of WHO's long-term programmes. In the underdeveloped countries, he said, there was a definite relation between the unfortunate situation of public health and the low standards of living. Mr. Hotchkis considered that the campaign against infectious diseases represented one of the most important of WHO's activities.

Mr. Leroy thought that, with the increase in the number of Members of WHO from 48 to 81, an extension of its Executive Board from 18 to 24 should be reconsidered. Mr. Hotchkis noted that progress had been made in the direction of the co-ordination of the efforts of WHO and of other specialized agencies. He considered that further stimulation of this co-ordination was a responsibility of the Council. Mr. C. L. Hsia (China) felt that WHO had not made the order of priority accorded to its programmes sufficiently clear in its report. Mr. J. Brilej (Yugoslavia) referred to the heavy task which awaited the Organization in the coming years.

Further comments, most of them expressing general approbation of WHO's work, were made by Mr. K. Salvesen (Norway), Mr. A. H. Abdel-Ghani (Egypt), Sir Alec Randall (United Kingdom of Great Britain and Northern Ireland), Mr. E. Nuñez Portuondo (Cuba), and Mr. R. Vasconez (Ecuador).

PASB Statistical Report

The Pan American Sanitary Bureau, WHO Regional Office for the Americas, has recently published *Basic procedures for the reporting of communicable diseases*,[7] a report containing the

[6] EB13. R 54, in *Off. Rec. Wld Hlth Org.* 1954, **52**, 22

[7] Pan American Sanitary Bureau (1954) *Basic procedures for the reporting of communicable diseases*, Washington, D.C. (Scientific Publications, No. 9)

recommendations of participants in a seminar on the reporting of communicable diseases which was held in November-December 1953 in Santiago, Chile. This seminar brought together epidemiologists and statisticians of the national health services of the countries of South America " to develop procedures and to prepare recommendations for local, national, and international reporting of communicable diseases ". The report on the recommendations that resulted fills the need for an outline of such basic procedures and can be used " as a reference document by health officials desiring to improve their systems ".

Maternal Care and Mental Health

The second edition of Dr. John Bowlby's monograph *Maternal care and mental health* (No. 2 in the *World Health Organization : Monograph Series*) has recently appeared in French (*Soins maternels et santé mentale*). This makes a total of 19,000 copies now published in the two languages.

Malaria Terminology : French

A glossary of French terms in malariology has recently been published by WHO in the Monograph Series. The work of a drafting committee appointed by the Organization and consisting of M. Vaucel, E. Roubaud, and H. Galliard, this monograph, *Terminologie du paludisme*,[1] is the French equivalent of *Malaria terminology*,[2] by Sir Gordon Covell, P. F. Russell, and N. H. Swellengrebel, which was published in 1953. The French glossary is not, however, a translation of the English, though the information and format of the former work have been adapted to the French monograph.

[1] Vaucel, M., Roubaud, E. & Galliard, H. (1954) *Terminologie du Paludisme*, Geneva (*World Health Organization : Monograph Series* No. 25) 95 pages. Price : 10/–, $1.50, or Sw. fr. 6.—

[2] Covell, Sir Gordon, Russell, P. F., & Swellengrebel, N. H. (1953) *Malaria terminology*, Geneva (*World Health Organization : Monograph Series* No. 13)

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